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10/519,766	07/28/2006	**Bernd Schultheis**	VO-713	7255

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EXAMINER	
BANH, DAVID H	
ART UNIT	**PAPER NUMBER**
2854	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/519,766	SCHULTHEIS ET AL.	
	Examiner	Art Unit	
	DAVID BANH	2854	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 November 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8,10-15,17-24 and 26-35* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8,10-15,17-24 and 26-35* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claim November 21, 2008 have been considered but are moot in view of the new ground(s) of rejection.

2. With respect to applicant's arguments directed towards the combination of Spychalla et al. and Moslehi et al., the argument that no motivation is provided to combine Spychalla et al. and Moslehi et al. because the apparatus of Spychalla et al. is too simple to require a complicated system of detection is not persuasive. The teaching of the detector is Spychalla et al. is applied to modify the primary reference Yasuda et al., in view of other prior art for the different claim rejections, because Yasuda et al. recites the desire for specific temperatures to fix the ink on the substrate. Thus, the combination now modified by Moslehi et al. is the printing system of Yasuda et al. in combination with Spychalla et al. and other references, which, as disclosed, requires specific temperatures over a broad print width and thus would benefit from having additional sensors and controllers for more precise control of the temperature.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-6, 19-22, 26 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yasuda et al. (WO 92/22018) in view of Rau et al. (US Patent 5,784,957).

Yasuda et al. teaches a printing device which is an electrophotographic printing unit (page 1, technical field description) comprising a transfer medium **1** for transferring toner power **10** to a substrate **6** that is conducted through a transfer zone (the region between **1** and **6**, best seen in Fig. 1 and Fig. 2) by a transport system (see the conveyer belt in Fig 2). Yasuda et al. teaches a heating element **4** for transferring heat energy to the substrate **6** (see Fig. 1). Yasuda et al. teaches that the transfer medium **1** is a transfer roller and that the heating element **4** is arranged upstream of the transfer medium **1** (see Fig. 1, particularly the arrow indicates the direction of substrate **6** movement). Yasuda et al. does not specifically teach that at a transfer zone formed between the substrate **6** and the transfer medium **1**, the temperature of the transfer medium is lower in at least an area of the contact face than at a surface of the substrate. However, Yasuda et al. teaches that the temperature of a substrate may optimally be over between 60 degrees Celsius and 160 degrees Celsius, and preferably over 140 degrees Celsius (page 35, lines 5-10 and lines 15-20). Meanwhile, page 35 teaches that the transfer roller (photoconductor **1**) may be run between 80 degrees Celsius and 140 Celsius to prevent fixing of the ink on the transfer roller **1**. Thus, the temperature of the roller is lower at some portion than the surface of the paper. Yasuda et al. does not teach a cooling device for cooling the transfer medium. However, Rau et al. teaches an internal cooling mechanism for a transfer cylinder (see abstract). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a cooling device for the transfer medium to allow the transfer medium to maintain a desired temperature. Finally with this combination, since the substrate is heated while the transfer roller is cooled, with both bodies in the same environment, the substrate will necessarily be warmer on some portion than the transfer roller.

For claims 2, 3 and 19: The combination of Yasuda et al. and Rau et al. teaches all of the structural limitations recited in these claims and parent claim 1. The cooling means is capable of reducing the temperature of the transfer roller to under 40 degrees Celsius. It would have been obvious to one of ordinary skill in the art to use the cooling device to cool the transfer medium to any normal temperatures required through ordinary routine experimentation. Additionally, one would have been motivated to reduce the temperatures to under 40 degrees Celsius to prevent the premature fixing of certain types of inks being used in the printing onto the transfer medium.

For claim 4 and 20: Yasuda et al. teaches a corona **7** that forms electrostatic images on the transfer medium **1** which would have an effect up through the transfer zone before the charges are removed by the charge remover **9**.

For claims 5 and 21: Yasuda et al. teaches that the printing device has the substrate on an electrically conductive base **5b** with a reverse polarity (page 29, lines 15-25).

For claims 6 and 22: The combination of Yasuda et al. and Rau et al. does not specifically teach that the speed of the substrate **6** is the same as the circumferential speed of the transfer medium **1**. However, it is clearly seen in Figure 1 that the transfer medium **1** prints upon the substrate **6** and drives it. It would thus have been obvious to one of ordinary skill in the art at the time the invention was made to require that both the surface of the transfer medium **1** and the substrate **6** move at the same speed, in order to prevent snagging or misprinting. Routine experimentation or an understanding of the concept of rolling without slipping would motivate one to recognize this result. Additionally, Yasuda et al. teaches that the printing device has the substrate on an electrically conductive base **5b** with a reverse polarity (page 29, lines 15-25).

For claim 26: Yasuda et al. teaches that the heating element heats the surface of the substrate to a surface temperature of between 140 degrees Celsius (column 35, lines 20-23) and 160 degrees Celsius (column 35, lines 5-8). The upper bound for the temperature is established, but the later discussion clarifies that 140 degrees Celsius is the necessary minimum temperature for fixing some toners to the substrate. The range of 140-160 degrees Celsius satisfies both claims 10 and 11.

For claim 33: The cooling device is capable of removing heat energy from the transfer medium and thus cools the toner powder which will prevent fixing of the toner powder to the transfer medium. Yasuda et al. teaches that the toner power is taught to have a given fixing temperature and one of ordinary skill in the art would recognize that it is undesirable to fix the toner onto the transfer medium.

5. Claims 7, 23 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yasuda et al. (WO 92/22018) and Rau et al. (US Patent 5,784,957) as applied to claims 5 and 1 above respectively, and further in view of Thompson et al. (US Patent 5,640,659).

For claim 7 and 23: The combination of Yasuda et al. and Rau et al. teaches all of the limitations of claims 7 and 23 as applied to parent claims 6 and 1 above. The combination does not teach that the surface which receives the toner powder on the transfer medium has an anti-adhesive layer and the layer has a surface energy of 15 mN/m to 30 mN/m. However, Thompson et al. teaches that the transfer medium has a top coat of fluorosilicone rubber (column 4, lines 26-28), which is anti-adhesive (column 4, lines 55-60, easy release of even tacky polymers) and has a surface energy within a range of 15 mN/m and 30 mN/m. It would have been obvious to one of

ordinary skill in the art at the time the invention was made to incorporate an anti-adhesive layer on the transfer medium to prevent the toner from sticking to and fouling the transfer medium.

For claim 32: The combination of Yasuda et al. and Rau et al. teaches all of the limitations of claim 31 as found in parent claim 1 above. The combination does not teach the printing device to have the cooling device remove heat from the transfer medium downstream of the transfer zone and upstream of a photoconductor. However, Thompson et al. teaches a cooling device that is located immediately downstairs of the transfer zone and upstream of any additional components, including a photoconductor, of the print unit. It would have been obvious to one of ordinary skill in the art at the time the invention was made to cool the transfer medium after contacting the substrate because the substrate will heat the transfer medium to temperatures that will cause the fixing of toner onto the substrate.

6. Claims 8, 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yasuda et al. (WO 92/22018), Rau et al. (US Patent 5,784,957) and Thompson et al. (US Patent 5,640,659) as applied to claim 7 above in further view of Ogawa (US PG Pub 2003/0007055). The combination of Yasuda et al., Rau et al. and Thompson et al. teaches all of the limitations of claim 8 as dependent on parent claim 7. While Thompson et al. teaches a lamp for heating the surface of the roller and the substrate, it does not specifically teach an infrared heater. However, Ogawa teaches that heaters in a printing machine that are preferable infrared heaters (page 5, paragraph 66, **46** and **47**). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use an infrared heater to heat the substrate and the surface of the roller as an infrared heater will be able to evenly and gently heat the surfaces.

For claims 10 and 11: Yasuda et al. teaches that the heating element heats the surface of the substrate to a surface temperature of between 140 degrees Celsius (column 35, lines 20-23) and 160 degrees Celsius (column 35, lines 5-8). The upper bound for the temperature is established, but the later discussion clarifies that 140 degrees Celsius is the necessary minimum temperature for fixing some toners to the substrate. The range of 140-160 degrees Celsius satisfies both claims 10 and 11.

7. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yasuda et al. (WO 92/22018), Rau et al. (US Patent 5,784,957), Thompson et al. (US Patent 5,640,659) and Ogawa (US PG Pub 2003/0007055) as applied to claim 8 above, and further in view of Spychalla et al. (US Patent 5,908,000).

The combination of Yasuda et al., Rau et al., Thompson et al. and Ogawa teaches all of the limitations of claim 12 as found in claim 8 above. The combination does not teach a temperature sensor assigned to the substrate and at least one of the heating element or the transport system being controlled by a control device as a function of the signal emitted by the temperature sensor. However, Spychalla et al. teaches a temperature sensor assigned to the substrate (column 2, lines 15-20, sensor directed at ink on the substrate) and the heating system is controlled by a control device as a function of the signal emitted by the temperature sensor (column 2, lines 18-25). It would have been obvious to one of ordinary skill in the art at the time the invention was made to teach a control device for controlling a heating system based on signals emitted by a temperature sensor for the purpose of controlling the temperature and maintaining it at a desirable level.

8. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yasuda et al. (WO 92/22018), Rau et al. (US Patent 5,784,957), Thompson et al. (US Patent 5,640,659), Ogawa (US PG Pub 2003/0007055) and Spychalla et al. (US Patent 5,908,000) as applied to claim 12 above, and further in view of Moslehi et al. (US Patent 5,156461).

For claim 13: The combination of Yasuda et al., Rau et al., Thompson et al., Ogawa and Spychalla et al. teaches all of the limitations of claim 13 as found in claim 12 above. The combination does not that teach a plurality of temperature sensors arranged over the entire print width and that a heating element assigned to each of the temperature sensors with a heating output that is separately controlled within zones over a print width. However, Moslehi et al. teaches a plurality of temperature sensors arranged over the entire print width (see abstract, temperature sensor **200**) each associated with heating elements (column 19, claim 3, multi-zone lamp) where the heating output is separately controlled within zones (column 19, claim 3, heating multiple predetermined regions).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include multiple temperature sensors for sensing across the entire print width of the web with associated heating elements for separately controlling the zones to provide more controlled readings of the web temperature and for bringing each region of the web up to the optimum temperature for printing.

For claim 14: Spychalla et al. also teaches that the printing device is a pyrometer (see abstract, pyrometer **200**). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use pyrometers as they can detect the temperature without substantially interfering with the operation of the press.

9. Claims 15 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yasuda et al. (WO 92/22018), Rau et al. (US Patent 5,784,957), Thompson et al. (US Patent 5,640,659), Ogawa (US PG Pub 2003/0007055) and Spychalla et al. (US Patent 5,908,000) as applied to claim 14 above, and further in view of Kurz (US Patent 5,375,518).

The combination of Yasuda et al., Rau et al., Thompson et al., Ogawa and Spychalla et al. teaches all of the limitations of claim 15 as found in parent claim 14. The combination does not teach that the cooling device comprises a liquid-cooled contact roller that rolls off the transfer medium and that climate-controlled air flow is directed onto the surface of the transfer medium. However, Kurz teaches a liquid-cooled contact roller that rolls off another roller to cool it (column 5, lines 64-68 and column 6, lines 1-55, cold water **80** and roller **107**) and a climate-controlled air flow that is directed onto the surface (column 3, lines 34-56, blowers **60**). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the cooling elements taught by Kurz into the printing system taught by the combination of Yasuda et al., Rau et al., Thompson et al., Ogawa and Spychalla et al. for the purpose of maintaining the system at a moderate temperature.

For claim 18: Thompson et al. teaches the positioning of the cooling device downstream of the transfer zone and upstream of other elements associated with the print unit in the direction of the transfer medium (see Fig. 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to cool the transfer medium at this point because it would have just been heated by contact with the substrate and would need to be returned to a base temperature.

10. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yasuda et al. (WO 92/22018) and Rau et al. (US Patent 5,784,957) as applied to claim 1 above in further view of Ogawa (US PG Pub 2003/0007055).

The combination of Yasuda et al. and Rau et al. teaches all of the limitations of claim 8 as dependent on parent claim 1. The combination does not teach the heater to be an infrared heater. However, Ogawa teaches that heaters in a printing machine that are preferable infrared heaters (page 5, paragraph 66, **46** and **47**). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use an infrared heater to heat the substrate and the surface of the roller as an infrared heater will be able to evenly and gently heat the surfaces.

11. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yasuda et al. (WO 92/22018) and Rau et al. as applied to claim 1 above, and further in view of Spychalla et al. (US Patent 5,908,000).

For claim 27: The combination of Yasuda et al. and Rau et al. teaches all of the limitations found claim 27 as in claim 1 above. The combination does not teach a temperature sensor assigned to the substrate and at least one of the heating element or the transport system being controlled by a control device as a function of the signal emitted by the temperature sensor. However, Spychalla et al. teaches a temperature sensor assigned to the substrate (column 2, lines 15-20, sensor directed at ink on the substrate) and the heating system is controlled by a control device as a function of the signal emitted by the temperature sensor (column 2, lines 18-25). It would have been obvious to one of ordinary skill in the art at the time the invention was made to teach a control device for controlling a heating system based on signals emitted by a temperature sensor for the purpose of controlling the temperature and maintaining it at a desirable level.

12. Claims 28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yasuda et al. (WO 92/22018), Rau et al. (US Patent 5,784,957) and Spychalla et al. (US Patent 5,908,000) as applied to claim 28 above, and further in view of Moslehi et al. (US Patent 5,156461).

For claim 28: The combination of Yasuda et al., Rau et al. and Spychalla et al. teaches all of the limitations of claim 29 as found in claim 28 above. The combination does not that teach a plurality of temperature sensors arranged over the entire print width and that a heating element assigned to each of the temperature sensors with a heating output that is separately controlled within zones over a print width. However, Moslehi et al. teaches a plurality of temperature sensors arranged over the entire print width (see abstract, temperature sensor **200**) each associated with heating elements (column 19, claim 3, multi-zone lamp) where the heating output is separately controlled within zones (column 19, claim 3, heating multiple predetermined regions).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include multiple temperature sensors for sensing across the entire print width of the web with associated heating elements for separately controlling the zones to provide more controlled readings of the web temperature and for bringing each region of the web up to the optimum temperature for printing.

For claim 29: Spychalla et al. also teaches that the printing device is a pyrometer (see abstract, pyrometer **200**). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use pyrometers as they can detect the temperature without substantially interfering with the operation of the press.

13. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yasuda et al. (WO 92/22018) and Rau et al. (US Patent 5,784,957) as applied to claim 1 above, and further in view of Kurz (US Patent 5,375,518).

The combination of Yasuda et al. and Rau et al. teaches all of the limitations of claim 30 as found in parent claim 1. The combination does not teach that the cooling device comprises a liquid-cooled contact roller that rolls off the transfer medium and that climate-controlled air flow is directed onto the surface of the transfer medium. However, Kurz teaches a liquid-cooled contact roller that rolls off another roller to cool it (column 5, lines 64-68 and column 6, lines 1-55, cold water **80** and roller **107**) and a climate-controlled air flow that is directed onto the surface (column 3, lines 34-56, blowers **60**). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the cooling elements taught by Kurz into the printing system taught by the combination of Yasuda et al. and Rau et al. for the purpose of maintaining the roller at a moderate temperature.

14. Claims 17, 31, 34 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yasuda et al. (WO 92/22018) in view of Rau et al. (US Patent 5,784,957) and Spychalla et al. (US Patent 5,908,000).

For independent claim 34, Yasuda et al. teaches a printing device which is an electrophotographic printing unit (page 1, technical field description) comprising a transfer medium **1** for transferring toner power **10** to a substrate **6** that is conducted through a transfer zone (the region between **1** and **6**, best seen in Fig. 1 and Fig. 2) by a transport system (see the conveyer belt in Fig 2). Yasuda et al. teaches a heating element **4** for transferring heat energy to the substrate **6** (see Fig. 1). Yasuda et al. teaches that the transfer medium **1** is a transfer roller

and that the heating element **4** is arranged upstream of the transfer medium **1** (see Fig. 1, particularly the arrow indicates the direction of substrate **6** movement). Yasuda et al. does not specifically teach that at a transfer zone formed between the substrate **6** and the transfer medium **1**, the temperature of the transfer medium is lower in at least an area of the contact face than at a surface of the substrate. However, Yasuda et al. teaches that the temperature of a substrate may optimally be over between 60 degrees Celsius and 160 degrees Celsius, and preferably over 140 degrees Celsius (page 35, lines 5-10 and lines 15-20). Meanwhile, page 35 teaches that the transfer roller (photoconductor **1**) may be run between 80 degrees Celsius and 140 Celsius to prevent fixing of the ink on the transfer roller **1**. Thus, the temperature of the roller is lower at some portion than the surface of the paper. Yasuda et al. does not teach a cooling device for cooling the transfer medium. However, Rau et al. teaches an internal cooling mechanism for a transfer cylinder (see abstract). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a cooling device for the transfer medium to allow the transfer medium to maintain a desired temperature. Finally with this combination, since the substrate is heated while the transfer roller is cooled, with both bodies in the same environment, the substrate will necessarily be warmer on some portion than the transfer roller.

The combination of Yasuda et al. and Rau et al. does not teach a temperature sensor assigned to the substrate and at least one of the heating element or the transport system being controlled by a control device as a function of the signal emitted by the temperature sensor. However, Spychalla et al. teaches a temperature sensor assigned to the substrate (column 2, lines 15-20, sensor directed at ink on the substrate) and the heating system is controlled by a control device as a function of the signal emitted by the temperature sensor (column 2, lines 18-25). It

would have been obvious to one of ordinary skill in the art at the time the invention was made to teach a control device for controlling a heating system based on signals emitted by a temperature sensor for the purpose of controlling the temperature and maintaining it at a desirable level.

For claims 17 and 31: Rau et al. teaches an internal cooling mechanism for a transfer cylinder (see abstract), which is air cooling (column 2, lines 50-55) and Yasuda et al. already teaches as discussed above that the transfer medium is a transfer roller.

For claim 35: The cooling device is capable of removing heat energy from the transfer medium and thus cools the toner powder which will prevent fixing of the toner powder to the transfer medium. Yasuda et al. teaches that the toner power is taught to have a given fixing temperature and one of ordinary skill in the art would recognize that it is undesirable to fix the toner onto the transfer medium.

Conclusion

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID BANH whose telephone number is (571)270-3851. The examiner can normally be reached on M-Th 9:30AM-8PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571)272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DHB
April 1, 2009

/Daniel J. Colilla/
Primary Examiner
Art Unit 2854